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Amendments to the Claims

Please amend the claims as shown below.

1. (Previously Presented) A method for reducing memory latency in a multi-node architecture, comprising:

issuing a memory read request from a requesting node;

issuing a speculative memory read request from a coherence agent in response to said memory read request from the requesting node;

receiving the speculative memory read request at a home node before results of a cache coherence protocol are determined; and

initiating a read to memory at the home node to complete the speculative memory read request before results of the cache coherence protocol are received by the home node.

2. (Previously Presented) The method of claim 1, further comprising:

buffering results of the read to memory.

3. (Original) The method of claim 2, further comprising:

dropping the results of the read to memory on a buffer full condition or if a cancel command is received.

4. (Original) The method of claim 3, further comprising:

if a confirm command is received after results of the read to memory are

dropped, initiating a second read to memory to complete a memory read request.

5. (Original) The method of claim 4, further comprising:

forwarding results of the second read to memory to a requester.

6. (Original) The method of claim 3, further comprising:

if a confirm command is received before results of the speculative read are

dropped, forwarding the results of the read to memory to a requester.

7. (Canceled)

8. (Original) The method of claim 6, further comprising:

receiving the results of the read to memory at the coherence agent; and

forwarding the results of the read to memory to the requesting node.

9. (Previously Presented) A method for reducing memory latency, comprising:

issuing a memory read request by a requesting node;

issuing a speculative memory read request from a coherence agent to a home

node in response to said memory read request from the requesting node before results

of a cache coherence protocol are determined;

initiating a read to memory at said home node; and

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initiating the cache coherence protocol after initiating the read to memory at said

home node.

10. (Original) The method of claim 9, further comprising:

updating a memory status relating to the results in a table after the results of the

cache coherence protocol are determined.

11. (Original) The method of claim 9, wherein initiating the cache coherence protocol

comprising:

initiating a status look-up to determine the caching status of the requested

memory.

12. (Original) The method of claim 11, further comprising:

issuing a confirm command to the home node if the caching status is determined

to be in an invalid state or shared state.

13. (Currently Amended) The method of claim 11, further comprising:

snooping a node with ~~the~~ an exclusive copy of the requested memory cached.

14. (Original) The method of claim 13, further comprising :

determining whether the exclusive copy of the requested memory is clean or

dirty.

15. (Original) The method of claim 14, further comprising:

issuing a confirm command to the home node if the exclusive copy of the

requested memory is clean.

16. (Original) The method of claim 14, further comprising:

issuing a cancel command to the home node if the exclusive copy of the

requested memory is dirty.

17. (Original) The method of claim 13, further comprising:

receiving a snoop result, wherein the snoop result includes a copy of the

requested memory; and

updating a memory status relating to the requested memory in a table.

18. (Original) The method of claim 17, further comprising:

receiving the requested memory; and

forwarding the requested memory to a requesting node.

19. (Previously Presented) A home node to respond to read requests in a multi-node

architecture including a plurality of nodes, the home node comprising:

a processor;

a memory; and

a node controller coupled to the processor and memory, the node controller to:

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receive a speculative memory read request from a coherency agent in the

multi-node architecture before a cache coherence protocol is resolved, and

initiate a read to memory at the home node to complete the speculative

memory read request before the cache coherence protocol is resolved.

20. (Original) The home node of claim 19 further comprising:

a buffer adapted to buffer the results of the read to memory.

21. (Original) The home node of claim 20, wherein the results of the read from

memory are dropped from the buffer on a buffer full condition or upon receiving a

cancel command.

22. (Original) The home node of claim 20, wherein the node controller responsive to a

confirm is adapted to forward the results of the read to memory to the requester.

23. (Original) The home node of claim 20, wherein the node controller responsive to a

cancel command is adapted to drop the data specified by the speculative read

command.

24. (Previously Presented) A system comprising:

a node including a node controller to control a plurality of processors resident in

the node, wherein the node controller is to receive a speculative read request from a

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coherence agent before results of a coherence protocol are determined and the node

controller is to read data specified by the speculative read command from memory

before the results of the coherence protocol are received by the node; and

the coherence agent coupled to the at least one node, the coherence agent

including a coherence controller adapted to determine the results of the coherence

protocol and adapted to forward a cancel command or a confirm command to the node

after the results of the coherence protocol are determined.

25. (Original) The system of claim 24, wherein the node controller responsive to the

confirm command issued by the coherence controller is adapted to send the data read

from memory to the coherence controller.

26. (Original) The system of claim 24, wherein the node controller responsive to the

cancel command issued by the coherence controller is adapted to drop the data read

from memory.

27. (Original) The system of claim 24, further comprising:

a requesting node adapted to send a data read request to request data identified

by a memory address included in the data read request.

28. (Canceled)

29. (Currently Amended) The system of claim 24, wherein the speculative read request

is sent by the ~~switching~~ <u>coherence</u> agent.